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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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THE CANADIAN LAKE CARRIERS' ASSOCIATION.

Some time ago steps were being taken to form a Canadian Lake Carriers' Association on similar lines to that perfected among the owners of American tonnage.

The result of the several meetings has resulted in placing several propositions before the owners of Canadian tonnage though up to the present nothing definite has been accomplished.

The first proposition read as follows:

Ontario vessel owners to become incorporated as a joint stock company. The company taking over all vessels at a valuation for which the owner shall receive a proportionate amount of stock. The net earnings to be divided as dividend on the stock. The management to be in the hands of officers of the company elected by the stockholders. If more tonnage than freight, the vessels not required, to be laid up.

The second proposition advanced stated as follows:

Ontario vessel owners to form themselves into an association (which may be incorporated or not) and to enter into an agreement, not to carry coal at a less rate than 30 cents per net ton, other kinds of freight to be fixed at a proportionate rate. Each vessel to pay into the association the sum of $100.00 to be forfeited in case the agreement is not faithfully observed.

The third and the point at which there is apparently a halt reads:

Ontario vessel owners to form themselves into an association and to enter into an agreement, not to carry coal on this lake for less than 30 cents a net ton, other kinds of freight at a proportionate rate to be fixed. To divide the freight so that each vessel will charter in turn, and to carry this out agree to charter exclusively through a general agent, the expense of this to be provided by each vessel paying — per cent on the tonnage carried on each trip. Each vessel to pay into the Association the sum of $100.00 to be forfeited in case the agreement is not faithfully observed.

It is well for the American owners to judge of the commercial stability and general transportation interests which might be affected it similar clauses were adopted in the constitution of the Lake Carriers' Association. Of course, such a thing as corraling all tonnage into a general combination is out of the question but at least it can be said that an association ought to be protective.

ELECTRICAL LIFE-BUOY.

As noted in these columns some weeks ago. A large electric company of Berlin, Germany, is making a life-buoy for use on ship board, which is fitted with an electric lamp so as to be visible at night in the water. A further and promising form of electric life-buoy has now been proposed in the nature of a dirigible craft, such as have already been used successfully in warfare. It carries a motor and reel of wire, and can be directed towards wrecks or any other object. By reversing, the motor can be made to rewind its wire so as to return with its burden. Some of the military or naval torpedoes of the dirigible type carry as much as 7,000 feet of wire, which in actual tests under observation they have run out in less than five minutes. They are freighted with explosives, but it is obviously easy to put food and drink instead in the receptacle. There are three distinct forms of the dirigible torpedo in use, one English, one German and one American, but the latter appears to be by far the best.

RAISING WRECKS AND SUNKEN VESSELS.

At a recent meeting of the Institute of Marine Engineers, held in London, a paper by Mr. T. W. Wailes on "Raising Wrecks and Sunken Vessels," was read.

Mr. Wailes in his paper dealt more particularly with two systems of salving stranded or sunken vessels, viz., lifting with lighters and pontoons, and lifting by platforming. He described in detail the practical working and advantages of each method, and pointed out the precautions necessary to be observed. Alluding to the use of casks for raising wrecks, he said that such things would do for raising small craft in rivers and calm waters; but to attempt to raise a large vessel in any seaway with their use was a most dangerous operation, and should not be attempted. In a case of this kind on the coast the work had to be performed between tides, and the casks could not be got in quick enough; for with every rise of tide those that were placed floated and the consequence was that the uppermost casks were pressed up inside against the deck and broken. When nearly a sufficient number were got in, the vessel might begin to get lively and knock her bottom out and unless means were taken for scuttling the ship in an operaton of this kind, she might be totally lost in a very short time. Those who undertook the raising of wrecks took upon themselves a great responsibility which required their utmost attention, with a will to face all sorts and conditions of weather and laborious work day and night. And without a constitution for this class of work, the aspirant had better rest at home.

NOTICE TO MARINERS.

REMOVAL OF OAKVILLE LIGHTHOUSE.—In consequence of the continued settling of the main breakwater pier at Oakville, on Lake Ontario, in the County of Halton, Ontario, it has been again necessary to move the light-house tower, and the block on which it stands, shoreward. They are now located on the pier near its inner end. Vessels entering Oakville Harbor will require to allow for this and exercise great caution in clearing the outer end of the pier.

EXTENTION OF PORT DOVER PIER.—The west pier at Port Dover, Lake Erie, in the Province of Ontario, has been extended farther into the lake by the addition of a cribwork block 100 feet long by 30 feet wide to the outer end of the original pier. The inner face of the new work is in the same line as the inner face of the old work. The lighthouse has not been removed and is consequently now 110 feet, instead of 10 feet, from the outer end of the breakwater pier.

WM. SMITH,
Deputy Minister of Marine and Fisheries.

DEPARTMENT OF MARINE AND FISHERIES,
OTTAWA, CANADA, 11th March, 1895.

FORT GRATIOT LIGHT-STATION. — Notice is hereby given that, on the opening of navigation, 1895, the characteristic of the 8-inch steam whistle at this station, at the head of St. Clair River, Lake Huron, will be changed to sound, during thick or foggy weather, blasts of 3 seconds' duration, separated by silent intervals of 17 seconds, thus :

Blast	Silent interval	Blast	Silent interval
3 sec.	17 sec.	3 sec.	17 sec.

By order of the Light-House Board:

JOHN G. WALKER,
Rear-Admiral, U. S. Navy, Chairman.

OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON, D. C., March 25, 1895.

U. S. DEPARTMENT OF AGRICULTURE,
WEATHER BUREAU, WASHINGTON, D. C.

The display of wind signals will be resumed this season at the regular and wind-signal display stations on the lakes, as follows: Lakes Pepin, Michigan, Huron, St. Clair, Erie and Ontario, April 10th ; Lake Superior, May 1st.

NEWS AROUND THE LAKES.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

The Chicago and Northwestern is nursing a car ferry scheme.

A $200,000 elevator will be built by Houston Bros., of Minneapolis, at Grove street and Archer avenue.

The underwriters have paid $42,500 for the burning of the wooden steamer Roanoke on Lake Superior last season.

Capt. Chas. A. Graves, of Green Bay, has come here to fit out the steamer Fountain City. He is part owner, and will command her.

The Jackson Park life-saving station is slated to open April 1, with the following crew, all of which are the old members: Capt. T. St. Peter, Joseph Langlois, Loren Peterson, Charles Graham, Matthew Peterson, William Gagnon, John Senville, Peter Enright.

The Sturgeon Bay & Lake Michigan Ship Canal & Harbor Co. was defeated in its suit against the Leatham & Smith Towing Co., before Judge Gibbons, for the recovery of $3,600 back tolls. The judge held that the canal company had no right to collect tolls on vessels or tugs not carrying freight or passengers and under the law could only collect toll from boats carrying freight or passengers, or both. This decision opens the way for a large amount of litigation.

DETROIT, MICH.

Special Correspondence to The Marine Record.

J. W. Brown has been appointed chief engineer of the Shenandoah.

The Secretary of the Treasury has appointed John Duffy assistant keeper of the light station at St. Clair Flats range, vice Albert Walker, resigned.

Mrs. Luella Stimpon, marine reporter, who has been spending the winter in Detroit, will shortly return to Mackinaw City, Mich., and open her office on April 1st.

The contract for the metal work for the Coyville River light station, in Oregon, has been awarded by the Treasury Department to the Russell Wheel and Foundry Co., of this city.

The new steamer building for C. R. Jones and others, of Cleveland, at the Orleans street yard, will be ready for service about May 15. Capt. George S. Cottrell will command her.

The steamer W. R. Stafford, will tow the Francombe and McWilliams this season; the Sam Marshall the barges Shawnee and Manitowoc; the C. H. Bradley the barges Brightie and Mary Woolson.

F. W. Wheeler has contracted with the General Electric Co., for the electric light plants for the new Mitchell & Eddy Transportation Co.'s steamships he is building at Bay City. J. J. Lynn of Port Huron, the company's agent placed the order.

Representative Robinson of St. Clair, has introduced a resolution in the State legislature asking the senators and representatives at Washington to use their influence to have the channel widened and deepened in the St. Clair river at its confluence with Lake St. Clair.

Samuel F. Rogers has been appointed acting keeper of the St. Clair Flats range light station, in place of Stephen Warren, resigned. Frank B. Vannack has been appointed active keeper of the Grand Island harbor range light station to fill a vacancy caused by the death of Jasper Kuhn.

Capt. Joe Gearings' new steam yacht Helen, was towed by horses on a truck from his father's yard at the corner of Fifteenth street and Warren avenue, to the foot of Twenty-third street, a few days ago. She cost $5,000, and is 70 feet long over all, 61 feet at the water line, and 13 feet wide, and 5 feet deep. She has a fore and aft compound engine of 100 horse power.

O. W. Shipman has leased for a term of years the dock at Amerstburg formerly occupied by John Mullen. This gives a frontage of over a thousand feet and a large force of men is to be kept continually at hand for fueling purposes, chutes for which have just been arranged. Andrew Welch will be the foreman at the docks and O. W. Shipman has determined to corral more river business than has ever been done at Amherstburg before and this too by giving the best satisfaction to masters, owners and engineers.

E. A. Evans of the Weather Bureau, gave a very interesting lecture at the Ship master's rooms on Saturday afternoon. He described the means by which the weather predictions are obtained by the Bureau. A lively discussion was maintained between Mr. Evans and many of the shipmasters, and those present were convinced that the predictions were of great importance and should be carefully studied by all masters of vessels before leaving port. All were so much interested that they requested Mr. Evans to meet them again, and he consented to do so on Wednesday and Saturday afternoons until the opening of navigation.

The steamer Raleigh is in dry-dock for repairs on the damages caused by her stranding near Cheboygan last fall. She is a trifle up amidship, but apparently is not badly injured. Capt. J. V. Tuttle, of Milwaukee, representing the underwriters, and Capt. J. M. Jones, representing the owners, held a survey on her. Capt. Jones says she will require steel arches. Her consort, the Tokio, which grounded at the same time, has received $2,000 worth of work and is now loaded with wheat for Buffalo. Capt. William Smith, of Marine City, who was on the Barnum when she was lost in the ice last spring, will sail the Raleigh this year.

A pretty ceremony occurred at the Detroit Boat Works last Thursday, when the keel of Melville B. Mills,' fine new yacht was formally laid. Capt. J. W. Westcott was master of ceremonies, Miss Ella Proctor Otis drove a golden spike into the keel, and Mrs. Murray Smith and Mrs. Westcott two silver spikes. The festivities included luncheon on Commodore Mills' yacht. The new yacht when completed, will be the largest steam yacht owned in Detroit. She will measure 132 feet in length by 17 feet beam. Her engine will show 350 horse power, and she will have sleeping accommodations for 25 people.

BUFFALO, N. Y.

Special Correspondence to The Marine Record.

The life-saving crew is to be increased from seven to eight men.

There are 3,000 bushels of wet grain in the steamer City of Genoa's cargo.

Capt. Jere Coleman, of the steamer Davidson, was one of the jurors in the trial of the Robinsons for murder.

Joseph Boland, connected last year with J. J. H. Brown & Co., will open up a broker's office in room 4, Exchange Building.

Capt. Lyman Cornwall, who died last Tuesday at his home in Scriba, N. Y., sailed the schooners A. W. Lucky and Portage, and was once first mate of the schooner Empire State.

Russell & Watson the old established lamp manufacturers and outfitters of the culinary department on shipboard have so increased their business that it has been found necessary to engage the large store rooms two doors above the old store on Main street. Mr. A. J. Russell reports business very brisk and their marine patronage excellent.

Following the general trend of intellectual and educational studies the F. P. Little Electrical Construction and Supply Co., have been giving a series of lectures on electricity during the past winter at the rooms of the Marine Engineers' Beneficial Association No. 1, which have proven highly beneficial to the members. These lectures will continue to be given every two weeks until May 1st, and all engineers are cordially invited to attend. The F. P. Little Co., are to be highly complimented for their splendid efforts in this direction.

CLEVELAND, O.

Special Correspondence to The Marine Record.

Mr. A. J. Russell of the Buffalo firm of Russell & Watson passed through here this week on his way home after securing several large orders from lake shipyards for ships lamps and culinary outfits.

The Globe Iron Works Co. have awarded the contract for the optician's outfit including compasses, etc. to Frank Morrison of this port. Mr. Morrison has also closed a contract this week with F. W. Wheeler & Co. for the compass outfit for the new steamers now building at W. Bay City.

The *Plain Dealer* has issued a marine edition today which is simply a hummer. Mr. George F. Callahan, their marine editor is one of the best writers on marine subjects that there is on the lakes and he is also well liked among, the marine fraternity. We understand that the bulk of the work of the mammoth marine edition was placed on the shoulders of George, yet, he is able to meet everything to his crrdit.

The Marine Engineers' Beneficial Association have revived their former custom of having addresses delivered before the entire body once a week. On Thursday last Mr. Sheppard gave a lecture on fuel combustion and the application of induced and force draft. This week Mr. E. W. Root will address the meeting on the economical working on steam engines and on April 4, Mr. H. J. Dowd will read a paper on electricity and the various forms in which it is now in use.

Col. Garretson has received a cablegram from J. H. Wade, announcing the arrival of the steam yacht, Wadena, at Cairo, Egypt. The message stated that all on board are well and enjoying the trip exceedingly. Considerable time was spent by the party in cruising in Asiatic waters. This is quite a world's record for a Cleveland built steamer and we venture to say that the American ensign has been carried in this craft into ports where it had but seldom ever been seen before. The Cleveland Shipbuilding Co. constructed the Wadena.

The Cleveland Tug Company, have purchased the new harbor tug, Ben Campbell, built at Charlevoix, Mich., last season consideration $8,000. The Campbell is a strongly built tug, of very fine model, of the following dimensions, length over all 87 feet, beam 18 feet, molded debth 10 feet, high pressure engines 20x22 steam allowed 140. She will be brought here immediately on the opening of navigation and placed in the line for harbor work. They have also disposed of the small tug Maggie Sanburn, to parties at Pine Lake, Mich. Consideration $2,500. The office of the company has been removed from Main Street bridge to No. 1, Front Street.

The members of the Cleveland Lodge, No. 4, of the Ship Masters' Association will give a reception next Tuesday evening at their club rooms. The invitations extend to the families of the members, and the especial guests will be the lecturers of the past several weeks, with their families. The evening will be passed with progressiue pedro and music. At Friday afternoon's session, the Ship Masters read a communication from the Lake Pilots' Association which was recently formed at this port, embracing all licensed sailing officers, and announcing these facts. The Ship Masters by resolution gave the new order their hearty endorsement.

COLLINGWOOD, ONT.

Special Correspondence to The Marine Record.

At Owen Sound the new Black Line steamer is well advanced. The cabins are well under way, the boilers are in place and the engines are about set up. The steamer will be ready for launching as soon as the ice moves out.

King Ben is the name given to a new steamer which has been launched at Kingston. The boat will be put on the Oswego, Kingston and Ottawa route. The dimensions are 111 feet keel, 22 feet beam, with 8½ feet depth of hold.

The steamer Majestic is assuming such a shape that the public are beginning to realize the work that has been done since the close of navigation in 1894. The two large boilers are in place, the bed of the engine has arrived, and in a few days the greater portion of the engines will be in. It is expected that the launch will take place about the middle of April, but no definite date has yet been set.

The dimensions of the tug which Mr. A. Morrill is building in the Hurontario street slip are: 65 feet length over all, 56 feet length of keel, 14 feet beam and 6 feet depth of hold. Steam will be supplied by a Fitzgibbon boiler five feet in diameter and six feet long. The engine will be steeple compound, cylinders 8 inches, 15 inches with 10 inches of stroke. The boiler has been in the tug Garnet for a number of years, but is in first-class condition. The engines will be new from the Killey, Beckett Co., Hamilton.

MILWAUKEE, WIS.

Special Correspondence to The Marine Record.

A new deck is being put on the steam barge Pewaukee.

The steamer Wm. Rudolph is having some work done at the West yard.

Changes in the barge Seymour will increase her capacity from $185,000 to 325,000 feet of lumber.

J. A. Winter has sold to Anton Nelson, of Sheboygan, a one-half interest in the schooner Pride for $600.

The repairs, including a new house, being put on the

barge Mary Mills at Menominee, are about finished.

The Wisconsin Fuel Co. has sold the schooner Waneetee to attorney A. G. Weissert for $1. There is no accompanying mortgage on record.

The report that the Christopher Columbus was to go to Buffalo this season was a mere bluff held out by Jas. Conlon, a Buffalo saloon keeper, who represented himself as agent for the boat in order to secure consideration of his bid of $3,000 for dock privileges.

The Anchor Line steamer Lycoming left the stationary dry dock at the south yard Saturday evening and will be ready to go into commission in ten days. With the exception of the houses, the Lycoming has been entirely rebuilt above the main deck, has new arches and has been thoroughly re-calked. The repairs will cost $20,000.

Charles Mangold & Co., acting for P. H. Fleming & Co., and the Union Marine Insurance Co. of London, which had the risk on the E. A. Shores' wheat cargo, have libeled the boat for $11,000 on the ground of lack of proper watchfulness and care on the part of officers and crew. The owners are having her appraised. Surveyors estimate that it will cost $10,000 to put her in shape again. She had a $38,000 valuation in Lloyds last year. She has been bonded and will go to Sheboygan for repairs.

DULUTH, MINN.

Special Correspondence to The Marine Record.

Rose & Lazier claim that between two and two and a half million bushels of grain capacity has been chartered since March 1.

The Anchor Liner Schuylkill, wintering at the Omaha dock, is about ready for the season. About twenty men have been engaged three weeks in scraping and painting her between decks, renewing parts of the bottom of the hold, and fitting her out.

There are now about 350 yard men at the American Steel Barge Co.'s plant, whose semi-monthly wages aggregate more than $7,000. Six empty barges are tied up at the yard; barge 132 is in the dry dock. There are three other boats under construction, the steamer Trevor and the two oil boats for the Standard Oil Co., all of which will be ready almost as soon as navigation opens.

ASHTABULA, O.

Special Correspondence to The Marine Record.

F. C. Stoeber, who will go in the steamer Corona this season as chief engineer, is moving here from Michigan.

The town of Ashtabula, the Lake Shore and the Pennsylvania have entered into a contract to dredge the main river from the government piers to the head of navigation, each to pay one-third of the expense.

Active work will soon begin on the improvements contemplated on the P., Y. & A. dock. The engineers have finished laying out the plans for the intended trestle, and tracks for the coal chutes. The material is on hand, and construction will begin at once.

PORT HURON, MICH.

Special Correspondence to The Marine Record.

The south-west wind of Sunday and Monday blew the ice well off the American shore, but on Tuesday it was blowing hard from the north and it brought lots of ice down. Nothing can yet be said about the general opening of navigation.

KEWAUNEE, MICH.

Special Correspondence to The Marine Record.

The life saving station here will be opened on Monday, April 1. The crew will consist of eight men, as follows: Capt. N. Craite, John Haule Jr., James White, Ben Kuhlman, Henry Lafond, George Flaherty, Peter Dionne and Joseph Le Clair.

LUMBER DEALS AND FREIGHTS.

An extensive deal in Chippewa County, Mich., pine land was made last week. The purchase was a tract containing over 10,000,000 feet, owned by the Dollarville Lumber Co., and the buyer was the John Spry Lumber Co., of Chicago. The price was between $30,000 and $40,000.

The Lumber camps in the Upper Penninsula lumber woods are rapidly breaking up, the camp work being about finished, and the men are taking a rest before the driving season begins. The wages paid to the lumbermen this season have ranged from $20 to $24 per month. Last season the rate was $16.

Twenty million feet of lumber is to be shipped from Green Bay to Buffalo this season.

The steamers Martin and Neff will carry from Ashland to Chicago the 11,000,000 feet purchased by the S. K. Martin Lumber Co.

Albert Pack, last Saturday, closed a deal for the Huron Lumber Co., mill and timber at Alpena. This mill, which has a capacity of 25,000,000 feet, and his other large mill will be run at their full capacity this year, he having purchased 50,000,000 feet of Canadian timber.

The Hall & Buell Co., who have been lumbering very extensively in northern Schoolcraft county, for the past 10 or 12 years, are about to close operations in that section unless other purchases are made. Their entire cut this season will be driven down the Manistique River and sawed at their mill at Manistique.

The Oconto Lumber Co., has purchased 7,000,000 feet of the pine got out at the head waters of the Oconto from Indian lands for $11.50 per 1,000 feet. The Wolf River logs were bid in by A. Spies, of Menominee, and brought $7.62½ per 1,000 feet.

The following rates and charters are quoted: From Duluth to Chicago, 12,000,000 feet, $1.75; Marquette to Lake Erie or Lake Michigan, $1.50; E. S. Tice and barges, 21,000,000 feet from Escanaba and Green Bay to Buffalo, $1.50; Tonawanda Barge Line 20,000,000, feet, Ashland to Chicago, $1.75; Bay City to Buffalo, $1.25.

APPOINTMENT OF OFFICERS FOR 1895.

	MASTER.	ENGINEER.
HARTS STEAMBOAT LINE, GREEN BAY.		
Str. Fannie C. Hart	H. W. Hart	Chas. Dennis
" Eugene C. Hart	C. B. Hart	James Miller
" C. W. Moore	J. M. Clow	Jule Schram
" Welcome	.....	.....
NORTHERN STEAMSHIP CO., BUFFALO.		
Str. North Land	W. H. Campau	Henry Reynolds
" North West	.....	A. A. Brown
" Northern King	F. D. Welcome	Wm. Pike
" Northern Queen	E. M. Smith	John Boyd
" Northern Wave	M. Niland	Fred. Potts
" Northern Light	M. J. Haberer	F. Harringer
" North Star	Wm. Thorne	Jno. O'Mara
" North Wind	Delos Waite	Thos. Jackman
Purser North Land, F. E. Curtiss.		
MILWAUKEE STEAMSHIP CO., MILWAUKEE.		
Str F. L. Vance	E.B.Marquette	W. J. Gervin
" R. P. Flower	F. Van Patten	Daniel Darcy
WISCONSIN STEAMSHIP CO., MILWAUKEE.		
Str. Thomas Davidson	J. H. Coleman	Jacob Noble
" F. Schlessinger	D. P. Craine	Arthur Fortier
" Geo. H. Dyer	Wm. Jamieson	Geo. Robinson
THE STEVENSON LINE.		
Str. C. H. Starke	Wm. Curtis	John Lacy
" Toledo	George Barns	C. Jubenville
" Hattie	N. S. Stewart	Irving Morrison
ALEXANDRIA BAY.		
Str. Island Wanderer	Wm. Hudson	George Willix
" Island Belle	R. Foster	John Farrell
" Ringleader	Ches. D. Slate	Chas. A. Wood
" Arctic	Wi liam Slate	Neal Night
Stm. yacht Sophia	H. W. Visgar	W. R. Moffitt
" " Sorius	Henry Derian	James Parker
" " Spry	John Dingman	Clark Bailey
" C. W. Crossman	Ed. Wagnos	Walter Wagnos
" " Massena	Frank Danna	John Danna
New yacht now build'g	Henry Seiffen	Fred Stowel
Stm. yacht Sport	Henry Westcott	Chas. White
" " Indienne	Chas. Wright	Ed. Bradway
" " Miniata	James Rattray	Alfred Graves
" " Nightingale	Henry Johnston	.....
" " Mamie C	Ed. Keller	S. A. Kenyon
L. S. SULLIVAN, TOLEDO.		
Str. D. W. Rust	Wm. J. Leaver	E. H. Hill
Schr. C. C. Barnes	Wm. J. Gordon	
" John Schurtle	Jno. O. Johnson	
" H. H. Badger	Wm. Bonnah	

WILL FIGHT FOREIGN UNDERWRITERS.

After being in session two days at Detroit, the lake underwriters suddenly adjourned Wednesday without having been able to come to any agreement on vessel insurance for the coming season. Wide divergence of opinion as to the best means of meeting active foreign competition was the cause of the rupture. Another effort will doubtless be made to bring the underwriters together with the hope of averting an open warfare on rates at the opening of navigation.

A pool on grain insurance in Chicago, Milwaukee, Duluth, Detroit, and Toledo was organized however. A committee consisting of David Vance of Milwaukee; McDonald and Elphicke of Chicago; Sandrock of Buffalo; and Gadsden of Chicago, was appointed to name the commisioner of the pool. This action is due to the sharp competition of foreign companies which have entered lake business and already taken large contracts at 15 cents for $100, as again the regular board rate of 60 cents from Duluth. The same offers have been made Chicago shippers, but have been refused, pending the action of the lake underwriters. The formation of the pool means an immediate drop of from 50 to 75 per cent. in all grain insurance rates. This reduction will undoubtedly extend throughout the season, as the lake underwriters are determined to fight the English competition in the field. All companies doing business on the lakes were represented at the meeting, and united in the grain pool.

FLOTSAM, JETSAM, AND LAGAN.

Prime Dauphinais, of New Jersey, will locate a marine railway at the Sault if the town will give him a bonus.

The board of trade of Sault Ste Marie, Ont., is trying to arrange with the various Georgian Bay steamship companies to make the Sault their terminus.

The steamer Michicott, which is wintering at Holland, has been sold by Capt. Peter Flansburg, of Manistee, to Frank Ludwig and J. H Sisson, of South Haven for $1,500.

The Benton Harbor life-saving crew is as follows: Capt., W. L. Stevens; surfmen, Richard Stines, Albert Carter, Frank Fowler, Chas. Burkhard, Fred Alden and Will Mayer.

The contract for the new bridge across Portage Lake has been awarded to a Houghton firm. The piers must be completed by May 12, and the work on the superstructure will then be pushed.

It is stated that the Canadian Pacific steamer Manitoba will ply this season between Detroit, Windsor Mackinaw Island, Sault Ste. Marie, Ont., Duluth and Fort William. The Manitoba is the finest Canadian steamship on the lakes. She has fine passenger and large freight accommodations.

The steamer Petoskey encountered huge fields of ice in Lake Michigan last Monday, and profiting by the experience of her sister boat, the Chicora, turned tail to it and made for the head of the lake. She is now in Chicago, awaiting developments. It is stated that Graham and Morton are considering bids on a new boat to take the place of the Chicora.

It is reported that President J. J. Hill, of the Great Northern, and Mr. John Rockefeller are likely to unite their forces in a strong combination at Everett under which the Pacific steel barge works will build four large steamers for the Pacific coast business of the Great Northern. Capt. McDougall is said to have afforded partial confirmation of the report on his return from the Pacific coast recently.

Recent marine transfers in the Grand Haven customs district are as follows: Steamer ferry Helen Taylor, of Ludington, W. S. Taylor to Flint & Pere Marquette, $1; schooner Vermont, Mary Burmeister to Ole A. Oleson, of Onekema, $191.67; schooner Vermont Obson to Ed. Henderson of Onepema, $575; steamer Desmond, Jenks' Shipbuilding Co. of Port Huron to W. H. White & Co., of Boyne City, Mich., and C. R. Jones, of Cleveland, $30,000.

The rocky shoal about half way between Plum and Detroit Islands in Green Bay and marked by a red spar buoy during the months of navigation is made more dangerous since the schooner H. M. Scove went to pieces there. Her entire bottom is anchored there on the shallowest spot by a lot of cobble stones placed between her frames to stiffen her while sailing. They now keep the bottom there intact so there is only six feet four inches of water over the keelson with high water, while there would be considerably less with low water or a high sea running.

A bill has been introduced into the Minnesota Legislature, proposing an amendment to the constitution under the operation of which the legislature may, at its discretion, for the next ten years offer bonuses to smithers and iron workers to locate within that state. The bonuses are to come from the royalties now paid into the state treasury by nine owners, and one half of the royalties is to be set aside annually for the purpose stated in the bill. In 1834 the sum in the royalties paid into the Minnesota treasury was more than $130,000.

SUPERINTENDENT NINTH L. S. DISTRICT.

Capt. E. E. Chapman, superintendent of the Ninth Life-Saving District, Buffalo, N. Y., with 11 stations under his charge is a fair sample of the caliber controlling the workings of local stations. There are but few men in existence who are brought up in the manner that the superintendents of life-saving stations are, and still fewer who could carry out the arduous duties entrusted to their charge after roughing it for so long a period.

THE RECORD has at all times been ready and willing to espouse the cause of the life-savers and their heroic work, and on these grounds alone have we devoted columns of our space in support of so noble a calling. We have now the pleasure of presenting to our readers a synopsis of the career of the latest appointed superintendent on the lakes.

Capt. E. E. Chapman was born at Ellisburgh, N. Y., in 1856, and started to earn his own living at the early age of nine years, brought up almost on the beach of the dreaded shores of Mexico Bay, Lake Ontario, he, at eleven years of age, rescued a playmate who had broken through the ice. A year later, or when only twelve years old, Chapman was pulling an oar in one of the numerous Seine boats on that shore in those days, the compensation consisting of a hand share of "the catch." To pass over a few years spent in hardy toil we find that Capt. Chapman's connection with the life-saving service dated from the organization of the 9th district (then known as the 8th) in which he signed articles as No. 6 surfman in a crew of six men at the Big Sandy Station, Lake Ontario, remaining in the service until 1879 when he resigned to go on the lakes, having become part owner in a schooner. The service, however, was too fascinating for an in-bred life-saver, and the season of 1880 found him back as No. 1 surfman, pulling stroke oar. After service at this function he was appointed keeper of the Salmon Creek Station in 1885, and in 1889 he was transferred to the keepership of the Oswego station where he remained until appointed to his present position as superintendent of the 9th L. S. S. District in 1892, succeeding the much respected and aged Capt. D. P. Dobbins on his demise.

THE NEW HUEBNER LIFE BOAT.

There is a great deal of interest just now exhibited in the new type of life boat known as the Huebner—named for its inventor—which is still in the experimental stage. One has just been built at Detroit, and will soon be given a test.

The boat is of the same general dimensions as the ordinary life boat, but differs greatly from it in appearance. The generally used boat has a turtle-back at each end, in which are stowed the air tight chambers that assist to right it, and at all times give it buoyancy, and between the two backs is an open space clear to the floor of the boat for the use of the occupants. Huebner's boat has a top that is a turtle-back, covering it for its entire length, and its air-tight chambers are beneath the floor, with a space amidships to make room for the propelling screw, which is situated exactly in the middle below the bottom.

Running lengthwise through the center of the boat is an iron bar, with five handles on each side for the rowers, ten in all. Attached to the bar at its central point is a movable rotary frame, which connects with one of the two shafts by a gear. As the strength of the rowers moves the bar back and forth the upper shaft revolves and by a gear turns the lower shaft, to which is attached the screw. This mode of propulsion is one of the two points on which he has taken out a patent. He claims that ten strong men, forcing the bar back and forth at ordinary exertion, can equal the power of one and one-half horses and drive the boat along at the rate of six miles an hour.

The other patented device is the cover, which renders the boat water-tight, and the shutters, two on each side, amidships, by the opening and closing of which ingress and egress is obtained. He claims for this feature that shipwrecked passengers to the number of 30 at one time, in addition to the ten rowers, can be lowered into the boat by slings from the stranded vessel and taken in through the open slides or shutters, and that when they are closed perfect safety and protection from the seas is obtained.

Many practical men have viewed the boat as it lies on the dock at Detroit, and have freely expressed opinions as to its future achievements. A feature that takes with many is the application of the motive power in the new direction that abolishes the use of oars. The latter can be handled by only the most skilled men in heavy seas, and are clumsy even then, furnishing an uncertain means of propulsion, and, besides, exposing the occupants to the full fury of the seas. The closed cover was based on the supposed success of the device, but on the other hand this very cover gives the boat such a height from the water level that it is thought by some that the winds will blow her about like a cork and possibly prohibit the crew from holding the boat in place while passengers are being lowered into it from a wreck. Again, while the boat is solidly built of oak and Georgia pine laid transversely, the airtight chambers in the bottom and its depth in the opinion of many vesselmen give it an undue buoyancy, which makes it "tender," or easily canted to one side or the other, as was illustrated when a crowd boarded it at the dock. However, this defect could be remedied by the liberal stowage of ballast.

Still another feature which appears objectionable is the projection of the screw below the keel. Let her ground on a rocky or even a soft bottom and it would seem certain that her own weight coming down on the screw with each sea would soon demolish the screw, or at least unfit it for use, in which case the boat would be worse than useless should the crew succeed in getting her off shore.

E. E. CHAPMAN, SUPT. 9TH L. S. DISTRICT.

Mr. Huebner says that while he has patented the rowing device, he will not depend upon it altogether. He will give his boat a thorough trial and if she satisfies him and the men who are backing him in the enterprise, he will give the Detroit Boat Works an order for an indefinite number of the same style, which will be equipped with naphtha engines to furnish the motive power, the rowers to be used only in case of emergency. They will be shipped to Milwaukee, where the Huebner Life-boat Co. has its office, and will be sold to all desiring them. The inventor is a young man and he is sanguine of the ultimate success of the new boat.

FREITSCH WILL CROSS THE PACIFIC.

Capt. Adolph Freitsch, the man who sailed from Milwaukee to and across the Atlantic in the little Nina, has again been heard from. The *Hupridstadsbladet*, a newspaper published in Helsinfors, Finland, contains the following:

"Capt. A. Freitsch, whose daring trip across the ocean in April, last year, attracted so much attention, is at present at his home in Abo, Finland, where his mother has just died. His plan is to go with the Nina to Manchester, Eng., and to visit on the way Stockholm, Copenhagen and other Baltic cities. He will then return to Finland, and the Nina will be sold. After this voyage Capt. Freitsch will build a new boat, somewhat larger than the Nina, of about 20 tons capacity, and with this boat he will cross the Pacific ocean from San Francisco. People in Abo have asked Capt. Freitsch to deliver a lecture on his dangerous voyage, and he promised to comply. He will deliver his lecture on March 3."

The paper quoted from is of an earlier date than March. The captain is evidently appreciated at his home. The most important news in this extract from the Finnish newspaper is that Capt. Freitsch, having "done" the Atlantic is now ready to cross the Pacific.

ABSTRACT OF BIDS.

U. S. ENGINEER OFFICE,
NEWPORT, R. I., March 20, 1895.

Abstract of bids for dredging, breakwater construction, and removal of ledge rock, opened at this office today at 12 o'clock noon:

DREDGING IN TAUNTON RIVER, MASS. (per cubic yard)—Columbus Dredging Co., Fall River, Mass., above Three Mile River, $0.81; at Three Mile River, $1.00; at the Needles, $1.35. Elijah Brainard, New York, N. Y., above Three Mile River, $0.82; at Three Mile River, $1.04; at the Needles, $1.56.

DREDGING IN PROVIDENCE RIVER. R. I. (per cubic yard)—R. G. & J. S Packard, New York, $0.15, if also awarded Green Jacket Shoal. John H. Fenner, Jersey City, N. J.. $0.18, if also awarded Green Jacket Shoal.

DREDGING ON GREEN JACKET SHOAL, PROVIDENCE, R. I. (per cubic yard)—R. G. & J. S. Packard, New York, $0.15, if also awarded Providence work. John H. Fenner, Jersey City, N. J., $0.20, if also awarded Providence work.

DREDGING.—Hartford Dredging Co., Hartford, Conn., in Hyannis harbor, $0.173; Algartown harbor, $0.275; New Bedford harbor, $0.17; Canapitsit channel, $0.36. Columbus Dredging Co., Fall River, Mass., in Hyannis harbor, $0.235; Algartown harbar, $0.225; New Bedford harbor, $0.34. Elijah Brainard, New York, in Hyannis harbor, $0.25, Algartown harbor, $0.25; New Bedford harbor, $0.30.

DREDGING IN PAWCATUCK RIVER, R. I. (per cubic yard)—John H. Fenner, Jersey City, N. J., $0.295, to begin July 1, 1895. Elijah Brainard, New York, $0.45, to begin March 1, 1896.

STONE WORK AT NANTUCKET, MASS. (per ton)—Humphrey Toomey, Guilford, Conn., $1.59; Pigeon Hill Granite Co., Rockport, Mass., $1.71; S. & E. S. Belden, Hartford, Conn., $1.73; Rockport Granite Co., Rockport, Mass., $1.87; Hughes Bros. & Bangs, Syracuse, N. Y., $1.87; W. H. Molthrop & Co., Gales Ferry, Conn., $1.95; Chas. F. Stoll, New London, Conn., $2.85.

REMOVING LEDGE ROCK IN PAWTUCKET RIVER, R. I. (per cubic yard)—Rogers & Fitzpatrick, Plattsburgh, N. Y., $7.73; Geo. W. Andrews, Biddeford, Me., $8.13; E. R. Seward, Albany, N. Y., $8.70; Townsend & Johnston, Somers Point, N. J. $9.80; Thos. A. Scott, New London, Conn., $10.90; John H. Fenner, Jersey City, N. J., $12.25.

W. H. BIXBY,
Captain, Corps of Engineers, U. S. A.

ADVERSE TO THE FRONTENAC.

Judge Severens handed down an opinion in the case of Henry M. Loud against the steamer Frontenac, at Detroit a few days ago from which it appears that early in the evening of November 5, 1891, the steamer Manistique, bound up the lake with four barges in tow, the last two being the Wyandotte and Norway, met the steamer Frontenac while entering Lake Huron. Passing signals were given and followed, but the Frontenac collided with the last two barges. The Wyandotte was damaged, and the Norway was wrecked completely and abandoned. In the opinion of Judge Severens the Frontenac had all the sea room necessary, and it was her duty to keep away. He found her at fault for the collision and referred the case to Commissioner Davison to ascertain the amount of damages to be assessed against the Frontenac.

ATTORNEY-GENERAL RICHARDS of Ohio has given a decision against the ruling of the Insurance Department in the case of the Hartford Steam Boiler Inspection and Insurance Co. The Department undertook to bring that company under the operation of the Montgomery Employer's Liability Law of last winter requiring it to deposit the sum of $50,000 with the state for the security and benefit of Ohio policy-holders. The attorney-general holds that the company in question can not be considered to do an employers' liability insurance business within the meaning of the statutes, and that it is therefore entitled to its license for the ensuing year without the imposition of any condition.

U. S. ARMORED CRUISER MAINE.

(ILLUSTRATED.)

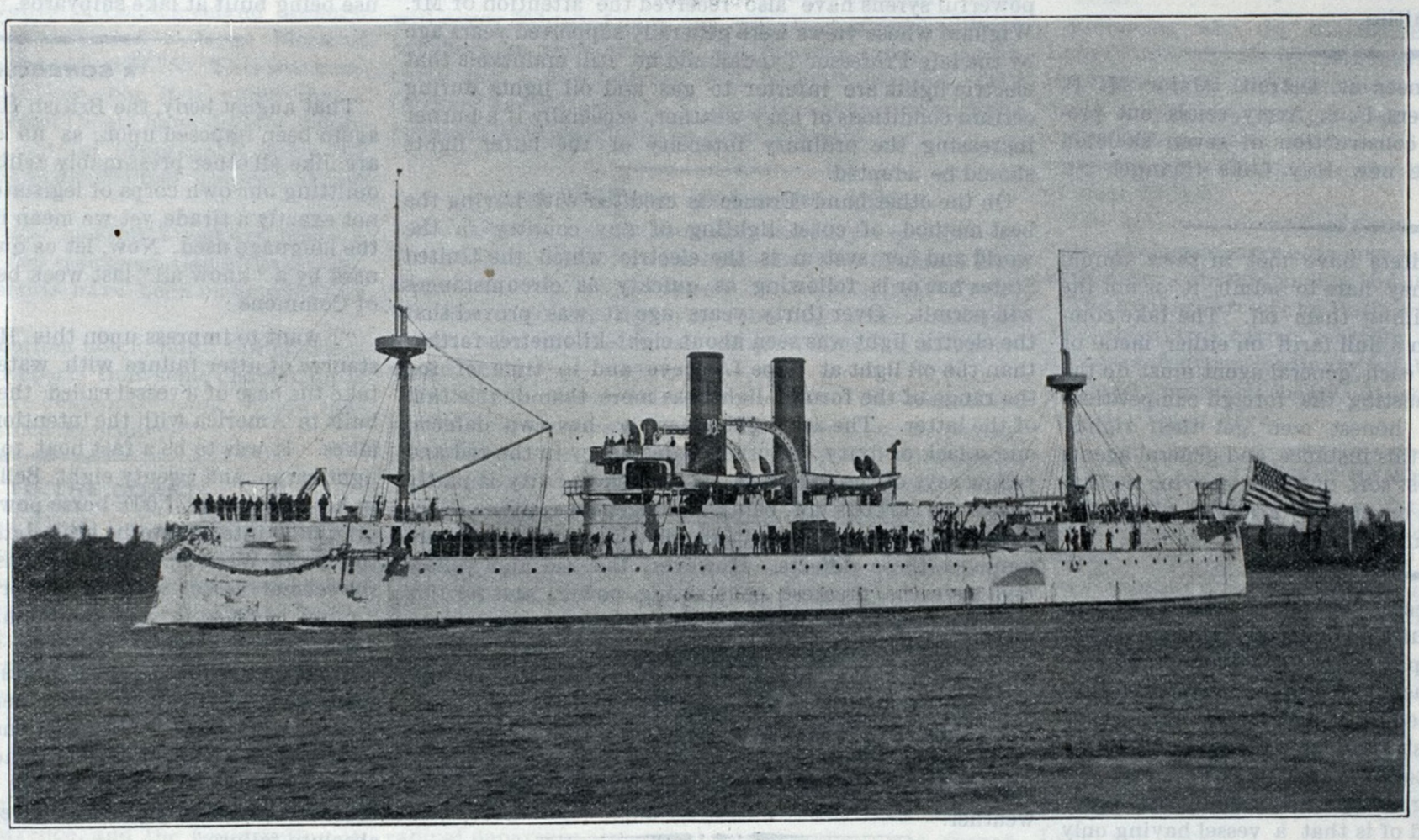
Evidently naval circles are getting alive to the fact that to maintain our supremacy as a nation we must enter into shipbuilding as a national industry. It is perhaps not quite close enough to the mark to say naval circles recognize the trend of affairs, rather should we say governmental, and herein comes the fact that the Maine is a purely American designed, built and equipped man-of-war.

The Maine is a twin screw armored cruiser built at the Navy Yard, New York, from designs furnished by the Bureau of Construction and Repair of the Navy department. The original design contemplated a bark-rigged vessel, but as the construction proceeded, the design was so altered that she now has two military masts only.

The hull is constructed of mild steel of domestic manufacture. The outside keel plate is ⅝ inch, the inner plate ½ inch and the vertical keel ½ inch thick. The outer bottom plating is ½ inch thick, with a double sheer strake; the plating of the inner bottom is 5-16 inch thick. The frames are spaced four feet throughout the length of the double bottom and three feet at the end. She is divided into 198 water-tight compartments, and has a double bottom extending from frame 18 to frame 67, a distance of 196 feet, and running up to the shelf for the armor belt. In the wake of the double bottom there are four longitudinals on each side and under the engines and boilers intermediate longitudinals are introduced

There are twenty coal bunker compartments, ten on each side of the vessel, extending down from the protective deck, with wing bunkers at each end of each fire room, and which extend inboard to the fronts of the boilers. The total capacity, in tons of 42 cubic feet, is 825 tons. The bunkers are filled through trunks leading down from the main deck, delivering directly into the several main compartments and into the wing bunkers, being so arranged that but little trimming of the coal is required until the bunkers are nearly filled. Escape trunks have been constructed leading from each bunker into the fire rooms above the boilers, and offer ready ingress and egress while coaling.

The ashes from the fire rooms are discharged through a single chute, located within the central superstructure deck, opposite the athwartship bulkhead dividing the fire rooms; it leads down from the main deck and passes through the side just above the armor belt.



U. S. ARMORED CRUISER MAINE.

DIMENSIONS OF HULL.

Length between perpendiculars, feet	310
Length over all, feet and inches	324-4
Beam, extreme, at L. W. L., feet	57
Draught, mean, normal, feet and inches	21-6
Area immersed midship section, square feet	1,077
Displacement, tons, at 31 feet, 6 inches	6,650.
Tons per inch	32.32
Center of buoyancy above base line, feet and inches	12-3½
Center of buoyancy aft of midship section, feet and inches	2-11
Center of gravity above base line, feet and inches	3-1
Transverse metacenter above C. B., feet	12
Longitudinal metacenter above C. B., feet	324
Coefficient of displacement, prismoidal, feet	0.596
" " " cylinprical, feet	0.669
" " midship section, feet	0.878
" " L. W. L., feet	0 747
Area of L. W. L. plane, square feet	13,560
Wetted surface, square feet	23,770

We are pleased to acknowledge the courtesy of the contributors to the February quarterly of the Journal of the American Society of Naval Engineers for their kindness in furnishing THE RECORD the cut and descriptive matter contained in the foregoing.

BAZIN'S ROLLER SHIP.

PUT-IN-BAY, O., MARCH 26, 1895.

To the Editor of The Marine Record:

In THE MARINE RECORD, issue of February 21st, there is an article relating to the roller steamer supposed to have been invented by M. Bazin an eminent French engineer. In this connection I would like to state that the type of boat or raft therein described was originally designed and patented in the United States seven years ago by my brother and afterwards I personally made some slight improvements on the design.

There is at the present time, and has been for the last five years, a model of this invention in the Life Saving Bureau, Treasury Department, Washington, but they seem slow to adopt an invention that ought to be of prime importance to the service.

On the raft was a long cylinder containing bedding and perforated with 1-64 inch holes to give air to the rescued passengers or crew. The craft was intended to run on the road or beach until abreast of the wreck when it could be safely launched into the surf. If a bar extended between the wrecked vessel and beach, the boat was so designed as to roll fairly over it without in any way damaging the hull. The drums were made of light steel, electric welded and well stayed, each bearing had a heavy spiral spring on top so that it made the craft as easy to ride over obstructions as a spring wagon and when striking rocks close ashore the springs permitted the drums or cylinders to lift and keep them from being injured to any extent.

This craft steered from both ends, the cylinder being keyed on to a shaft, revolving in square nuts set in quadrants and connected by lines to the steering wheels. I am interested in M. Bazin's apparent adoption of our plans and will take steps immediatly to enter into correspondence with him and will later forward THE RECORD model and plans of the Barry roller craft.

F. J. BARRY.

DECEASED SEAMEN'S EFFECTS.

TAWAS CITY, MICH., March 24, 1895.

To the Editor of The Marine Record:

Inquiries from THE RECORD addressed to the postmaster here having reached my hands, I desire to state in reply as follows: The effects taken from the bodies of the men picked up after the foundering of the steamer Philadelphia on Lake Huron last summer, and that still remain in the hands of the county treasurer, may be thus enumerated; to wit, Charles Williams, $1.25; Alfred Hannah, $80; Charles Linguist, 88 cents; Charles La Bell, $4; James Hurst, $26. The following amounts has been paid to relatives of the following, Charles M. Leggett $23.54; Geo. Reidermaster, $52; George Wise, $24.33; and there is nothing remaining here but the foregoing named amounts.

THOMAS GALBRAITH, County Clerk.

CURRENTS AT NIAGARA AND PORT HURON.

WILLOW SPRINGS, ILL.

To the Editor of The Marine Record:

I would thank you to inform me at what rate the water above and below Niagara Falls runs, that is, the rate of the current, also rate of current at Port Huron, Mich.

D. JOHNSON.

Questions like the above have been answered in our columns time and again, yet once more we may quote E. H. Ruffner, Major of Engineers, U. S. Army, in charge of the Niagara district, and stationed at Buffalo. Major Ruffner says that he has but little data at hand relative to the rate of current above and below Niagara Falls. The survey from Tonawanda to Port Day (just above the Falls), made by Major Stickney, Corps of Engineers, U. S. A., in 1891, is about the only authority. This does not give the current velocities save near the New York shore, at short distances out. The map gives, near Conner's Island, 1.28 miles per hour; lower down, near Grass Island, 1.97 miles per hour, and half way between the two spots, 1.38 miles per hour. Below the Falls the Lake Survey Chart does not give any data as to current. The only accurate gauging had in the vicinity of Buffalo, just below the international bridge, gave velocities varying from 2¾ to 3¾ miles per hour. Now, having given Maj. Ruffner's statement, we come to the Port Huron record, wherein we find that O. M. Poe, Colonel, Corps of Engineers, Bvt. Brig. General, U. S. A., is on record as giving us the following particulars relative to the rate of current at Port Huron: "I regret that we have no record in regard to the matter. In fact, observations would have but little value, because the current is variable. The velocity observed would depend upon the place of observation, the direction of the wind, etc., etc. In the rapids immediately at the head of the river the velocity is sometimes as great as 6½ or possibly 7 miles per hour, but is generally less. Abreast the city of Port Huron, where the river is wide, the rate is probably never more than 2½ miles. It is obvious that a northerly wind, by raising the level of Lake Huron just above the head of the river, will cause an increase in velocity, while a southerly wind will have the opposite effect."

This seems to us all the information which we can give our correspondent on the subject at this time, though we may say that steps will likely be taken in the near future to determine the currents and out-blow more accurately.—ED.

A STORY is told of the Grand Trunk officials in London that may not be unmixed truth. It is related that the fact having come to the knowledge of the English officials that ice in the Detroit River was a source of great expense to the company's transfer steamer, involving enormous coal bills, the officials thereupon telegraphed that the ice should be sawed out and allowed to "drift down." It was sawed out accordingly, but as it could not drift very far a greater nuisance and a larger expense followed. The Englishmen being informed of this, immediatly telegraphed to "put the ice back again."

THE MARINE RECORD

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CLEVELAND, O., MARCH 28, 1895.

AND now the Shipmasters' Society of Great Britain desire gas instead of electric lights as aids to navigation. It is certainly hard to drive modern improvements into the "gray matter" of antiquities.

THE light-house engineer at Detroit, Major M. B. Adams, Corps of Engineers, U. S. Army, sends out proposals this week for the construction of seven skeleton iron towers for use in the new Hay Lake Channel, St. Mary's River.

THE marine underwriters have met in their annual conclave and whether they hate to admit it or not the English competition is killing them off. The lake companies could not agree on a hull tariff on either metal or wooden hulls, therefore, each general agent must do the best he can towards meeting the foreign competition. Where rogues disagree, honest men get their rights. Well! perhaps it is so in this instance, and general agents will meet even the keenest sort of close shaving so that owners and shippers will be entirely gratified at the dissention in the ranks of underwriters.

THE supervising inspector-general of steamboats has received a letter from Buffalo vesselmen, who state that they are unable to comply with subdivision E of rule Three of the recently inacted White law, which requires that a vessel over 150 feet in length shall have range lights, one at the foremost head at a height equal to the width of the vessel up to forty feet in width, and one abaft that fifteen feet higher than the foremost headlight. The difficulty complained of is that a vessel having only one mast cannot show two lights as required. The inspector-general rightfully holds that the law must be obeyed and a second mast erected if necessary. Thousands of copies of the new law have been distributed along the lakes for the information of mariners so that no one will have an excuse for saying that he did not know the provisions of the foregoing clause. It is to be expected that in the execution of any new law of such importance there will always be hitches, but in the matter of range lights the rule is not a new one for steamers without canvas. Perhaps a storm jib or staysail fitted on the fore stay having three or four cloths might obviate the use of range lights.

LIGHTS FOR LIGHT-HOUSES.

It is possible that we do not yet know all that may be learned relative to illuminants for light-houses. Homer, acording to Pope's translation of the Iliad, treats of a light-house in the following lines:

> "So to-night wandering sailors pale with fears,
> Wide o'er the watery waste a light appears,
> Which on the far-seen mountain blazing high
> Streams from lonely watch tower to the sky."

Well! this may seem as it appears, but, it is almost certain that a tower on the temple of Apollo erected on Mount Leucas was a night beacon for mariners and we can at least go back over 2,000 years to substantiate the existence of light-houses.

The foregoing being in part historical, it is somewhat of a wonder that after twenty centuries of experience, the question of the best illuminant is still open to actual demonstration. This is brought more palpably to the front on account of a recent address before the London Shipmasters' Society—wherein it is held that gas is superior to the electric light and that a vertical deflection in foggy or cloudy weather is, Indian fashion, of more value than horizontal rays, a thesis which might prove of some degree of reliability when the fog was low-lying and the sky flash could be seen above the clouds or haze, although it should be added that from actual experiments between electric and gas lights it has been found that in fine weather the electric light was easily first as an illuminant, in misty weather it was less brilliant than gas, and in foggy weather the gas light was perceivable long after the electric light had failed to penetrate the fog taking, of course, the lights at the same initial intensity on lighted buoys.

Mr. J. R. Wigham, M. R. I. A., president of the Dublin Chamber of Commerce says that while these buoys have become indispensable for safe navigation they have hitherto been mostly lit by small burners of compressed gas which is a very costly system and the expense militates against their universal adoption. To obviate this feature a method has been invented for using mineral oil which can be applied to any existing buoys and beacons at small cost, gas guns and gas engines for working powerful syrens have also received the attention of Mr. Wigham whose views were generally supported years ago by the late Professor Tyndall and he still maintains that electric lights are inferior to gas and oil lights during certain conditions of hazy weather, especially if a burner increasing the ordinary intensity of the latter lights should be adopted.

On the other hand France is credited with having the best method of coast lighting of any country in the world and her system is the electric which the United States has or is following as quickly as circumstances will permit. Over thirty years ago it was proved that the electric light was seen about eight kilometres farther than the oil light at Cape La Heve and in time of fog the range of the former light was more than double that of the latter. The arc light, however, has two defects; one, a lack of fixity, the other, a deficiency in the red and yellow rays of the spectrum. This lack of fixity is partly due to the carbons not being homogeneous, although an improved process of manufacture has in a great measure removed these defects. However, the red and yellow rays have the greatest penetrating power, and for this reason an oil light, which is rich in these rays, can be seen farther in foggy weather than an electric light of equal candle power and it is just at this stage where Mr. Wigham substantiates his assertion relative to the superior qualities of the oil over electric for he has perfected an invention whereby the intensity of the oil light can be increased or regulated according to the state of the weather.

THE NEW TREATY.

Preliminaries are being arranged for forming a new treaty between the United States and Great Britain concerning Bering Sea seizures, the negotiations for which will be carried on in Washington.

Sir Charles Tupper, minister of marine and fisheries of Canada, and other leading statesmen of the Dominion, including probably minister Foster, will reach Washington to co-operate with Sir Julian Pauncefote, the British ambassador, concerning the terms of the treaty.

Such being the status of the Dominion with our executive officers, we should like to ask what is to prevent a clause being inserted in this new treaty permitting shipbuilders on the lakes to freely compete with other builders in the construction of light-draft naval tonnage at lake shipyards. There is no possible reason why naval ships destined for and to be delivered on the coast should not be built at any point. So far as construction goes, they are simply shells of steel and totally unrecognized as vessels until equipped ready for service; up to that time they are purely and simply a mass of metal.

A great injustice is being worked upon a large portion of our population by the nonsensical embargo, due to some almost antediluvian treaty, placed upon the building of naval vessels at lake shipyards, or at least, the treaty stipulations standing in the way can only be regarded as such at this date and age.

War with Great Britain is impossible from any standpoint. Her star is on the wane, and the next clip she may get from a first-class power will undoubtedly place her hors-de-combat, as the French would say. The "mistress of the seas," etc., dare not at her peril court even a diplomatic embroglio with this great nation, then why should we hold to an ancient and defunct misunderstanding in prohibiting our citizens from competing for national contracts involving the workmanship of at least fifty of the most skilled industries extant?

The open course to pursue is to give notice of the abrogation of the terms of a treaty which ought no longer be enforced, and the justice in doing so rests in the clause that such treaty stipulations may be closed after due notice has been given by either of the principals to the original agreement.

The only equitable course, then, for the United States to pursue is to grant permission to the immense and valuable lake shipbuilding industry to compete for all government contracts which the waterway to the coast is adequate to accommodate, even if it is, as we now must perforce acknowledge, a waterway through British territory. Pending the entire abrogation of the treaty, which will not allow the hull of a craft destined for naval purposes, to be put together on the lakes, it would seem that the conference to be held in a few days between the high contracting parties, would be an excellent time to bring about a modification of the former treaty, even if it only goes so far as to permit of vessels not intended for lake use being built at lake shipyards.

A SCREECH.

That august body, the British House of Commons, has again been imposed upon, as no doubt they frequently are, like all other presumably deliberative assemblies, not omitting our own corps of legislature. The foregoing is not exactly a tirade, yet we mean it to be such in view of the language used. Now, let us quote verbatim the terms used by a "know-all" last week before the British House of Commons:

"I want to impress upon this House that there are instances of utter failure with water tube boilers. I will take the case of a vessel called the North-West. It was built in America with the intention of being run on the lakes. It was to be a fast boat, to carry passengers and light cargo, and twenty-eight Belleville boilers were put in her, indicating 7,000 horse-power. Two vessels were originally intended to be built, but as a result of running the North-West, that intention has been abandoned and the second vessel will not be proceeded with. Why? Simply because it was found that when running, the boilers are constantly requiring repairs, simply on account of the bubbling of the tubes. And that is not all. According to American law, there should be a fusible plug on the top of every boiler, and it was found necessary on each voyage, to carry almost a cargo of these plugs, because they were always melting. The North-West has practically proved in every sense of the term an absolute failure."

Mr. Allan is eminently correct in his general diagnosis of tubulous boilers, and perhaps we may let it rest at that. We do not like, however, the fling that he has taken at the finest lake passenger steamers ever built. Let us say that the North-West is a perfect success from every standpoint, and the North-Land is similarly equipped relative to the boiler arrangement, a fact which in itself bears out the economy of the Bellville type of boilers.

Furthermore, we do not recognize the statement of the "Sunderland Poet" when he attacks all water tube boilers as being inadequate. The Belleville may, as also the Babcox & Wilcox, as well as some of the other makes, but the fact remains that we have had better efficiency from water tube boilers than any others, and they will eventually "gain the day." At the same time more trouble has been caused through the tubulous type of boilers than by others, and we may state that more lives have been lost through the adoption of the new principles than were experienced under the old type of boilers. All the same, the addresse of the British House of Commons was entirely at fault in pointing out the assumed failures of the Northern Line steamers on the lakes.

Mr. Allan partly redeems himself, however, in admitting that with fresh water the workings of water tube boilers may be guaranteed. On the other hand he condemns himself by classing all water tube boilers as inefficient. The time will come when the tubulous will conquer over the cylindrical type, but Mr. Allan is too early in his premises.

LAKE FREIGHT MATTERS.

Three or four owners, among them J. C. Gilchrist, the American Steel Barge Co. and the American Navigation Co. (owners of the Harper and Nimick) have contracted this week to carry about 150,000 tons of Mesaba ore from Duluth to Lake Erie before Oct. 1 at 75c per ton. Mr. Gilchrist has also taken a large block of Escanaba ore at 55c. All the business was taken Monday and Tuesday. Offers were made at this price to all the vesselmen in Cleveland, and some telephone communication was held with owners in Toledo and Detroit, but owners for the most part declined to have anything to do with the ore at those prices. They believe, or many of them so express themselves, that the Standard ore men will get 20c or 25c advance when sales are made, and that the vessels should have five or ten cents of that added to the contract rate for the season of 1895, which would mean 85c or 90c per ton from Ashland and Two Harbors and 75c or 80c from Marquette. They feel that nothing will be lost by waiting and that a good deal may be gained.

Some of the lumber charters that have been reported to the public at rates higher than the actual transactions represented. It turns out that 7,000,000 feet of Norway pine goes from Ashland to Chicago at $1.62½, a shilling less than the rate expected. It also turns out that lumber charters from Marquette to Cleveland are being made at $1.45. C. R. Jones & Co., Cleveland brokers, have cornered the transportation of a large block of lumber, Superior to Tonowanda, at $1.75. This was commented upon as absurdly low, but it is noted that a number of owners of lumber boats have kindly volunteered to help the firm out on bringing it down the Lakes. Bay City reports 80,000,000 feet covered at last year's low rates.

Several coal men are now looking about and making inquiries in regard to the transportation of lake coal, but no definite arrangements have been made with any boats yet.

Grain remains at the bottom notch, but a few charters continued to be made. Reports that some chartering is being done at Duluth are denied, it being stated that nothing has been done since February.

A CANAL TO THE COAST.

A project to connect the Great Lakes with the Atlantic by a ship canal, beginning at the mouth of the Welland Canal, on Lake Erie, and utilizing and connecttng Lake Erie and Lake Ontario, the St. Lawrence River, Lake Champlain and the Hudson River, is now on foot.

It involves the construction of a canal capable of receiving vessels of ocean draught from a point near Albany, on the Hudson, to Lake Champlain, the deepening of that lake, a canal from the head of Champlain to Lake St. Francis on the St. Lawrence River, the broadening and deepening of the present Canadian canal system along the St. Lawrence, and the construction of a practically new canal from Ontario to Erie across the Welland peninsula.

Besides this great enterprise the Panama and Nicaragua Canals dwindle in importance, and Suez becomes a matter for minor mention. It is well known that the tonnage passing through the locks of Sault Ste. Marie each year exceeds that passing Port Said. And this in the face of the fact that the Suez is a ship canal and the Great Lakes have for an outlet to the coast only an 8-foot barge canal, open only for two-thirds of the year.

These comparisons merely indicate what commerce must some day arise to when the great inland seas of the Northwest have a practically open roadway to the Atlantic and it will be possible to sail or steam in almost uninterrupted voyage from Chicago and Duluth to Liverpool or Port Said, and the ports of the Black Sea. With the construction of this proposed ship canal it will be possible for an ocean vessel to transverse this broad waterway from the heart of the Western to the Eastern continent.

The Erie Canal, the Welland Canal, the works at Sault Ste. Marie and the countless millions spent at various other points represent the persistent efforts made by both the Canadian and United States governments to open these great waterways to commerce. But one great obstacle has intervened. That is the tremendous drop of 326 feet from Lake Erie to the level of Lake Ontario. A series of 24 locks is at present required to co= pass this difference in attitude. They have been constructed at an enormous cost and they are practically nothing more than barge locks. The cost of a lock system of the prevalent type suitable for a ship canal would be almost prohibitive.

The Western producers who pay the freight, are to a man dissatisfied with existing transportation conditions. They know that they pay $75,000,000 yearly more for freight and an equal amount for commissions and rehauling more than they need to pay; that such conditions prevent them from using their acres to the best advantage, because the grosser crops cannot be moved at all; that local prices for their crops, which they must sell, are forced down, and the prices of the necessities which they must buy are raised by these freight charges; that these transportation conditions make their labor unprofitable, and they are determined to have relief. That relief will come with the proposed canal, also will communication with the coast make seaports of what are at present lake cities.

CAR FERRIES ON LAKE ONTARIO.

The American & Canadian Navigation Co., has been incorporated at Trenton, N. J., for the purpose of operating two freight and passenger ferries between Oak Orchard Harbor and Port Hope and Coburg, Ont. The navigation company will, it is understood, at once begin the construction of two steam ferries, each 225 feet in length, with 45 feet beam, 10½ feet draught. Each will carry 26 loaded cars, and will be equipped with ice breakers, so they can run all the year round. At an early date a new railroad will be built between Oak Orchard and Batavia, N. Y., to form connection with the proposed transport line on Lake Ontario.

ONE FEATURE OF SHIPBUILDING.

Not alone is the shipbuilding industry a question of constructing hulls, for if we take the two Saginaw Bay shipyards, viz., Capt. James Davidson's and F. W. Wheeler & Co., we find the following orders recently placed with the American Ship Windlass Co., Providence, R. I.

From Capt. James Davidson an order for five steam windlasses, two steam capstans and four steam towing machines. From the yards of F. W. Wheeler & Co. orders have been sent to the same firm for three steam windlasses, two capstans and one hand capstan for vessels now on the stocks A steam yacht windlass for the yacht Wapiti makes an inclusive bunch of orders of high-classed mechanism from the Bay cities worthy of mention in the record of lake shipbuilding.

A SUBMARINE BOAT.

A contract was signed on Tuesday by the Secretary of the Navy, with the John P. Holland Torpedo Boat Co., for the construction of a submarine torpedo boat for the use of the navy. The contract, which may mark a radical departure in naval construction, was signed only after a thorough consideration, extending through a period of nearly two years of the subject of submarine boats and after various plans for such craft had been examined. The appropriation for a submarine torpedo boat was made over two years ago.

The dimensions of the vessel contracted for are to be, length 80 feet, diameter 11 feet, displacement (total when submerged) 138 1-2 tons. All parts of the vessel and the steel to be used in her construction are to be of domestic manufacture. She is to be completed within twelve months from date under time penalties. The contract calls for a speed of fifteen knots when the boat is in light condition, fourteen knots when in the awash condition, with a minimum endurance of twelve hours at these speeds and of eight knots when completely submerged with a minimum endurance of six hours. The secretary of the navy may refuse to accept the boat if it on trial, falls one and one-half knots an hour below the speeds named, or accept her at a reduced price. The price to paid for the boat is fixed at $150,000, to be paid for in five equal instalments, but with certain retentions as a reserve fund until final acceptance.

It is expressly stipulated that the United States shall have the optional right to acquire the patent rights for the Holland type of boat, the price to be paid for the rights to be determined by a board of three naval officers, the option to run until thirty days after the first session of congress succeeding acceptance of the vessel. This provision is to give congress opportunity to enact legislation for the acquisition of the patent if desired.

THE ST. PAUL LAUNCH.

She ought to have gone off on Monday, but she didn't care to until later on account of poor ways, tallow, etc. to make her slide. The St. Paul, building at Cramp's, Philadelphia, is a sister ship to the recently launched St. Louis, and will be equipped with two quadruple expansion, vertical, six cylinder engines on four cranks, driving twin screws, with a working pressure of 200 pounds of steam, supplied by ten boilers. It is calculated that the engines will develop about 20,000 collective horse power. No prediction as to speed can be made, but as the contract between the United States Post Office Department and the International Navigation Co. requires that the ships shall be capable in ordinary weather of a sea speed of twenty knots, it may be considered certain that they will make that speed at least.

To navigate each of the ships and to meet the needs of their passengers the following completement of officers, seamen, engine-room and fire-room hands and attendants has been fixed upon:

Captain	1	Stewards and cooks	124
Officers	6	Stewardesses	16
Seamen	48	Chefs de cuisine	2
Firemen	120	Mail Clerks	2
Engineers and Machinists	30	Doctor	1
Oilers	30	Purser	1
Printer			1
Total			381

Following are the dimensions of the new vessel: Length over all, 554 feet 2 inches; length between perpendiculars, 535 feet 8 inches; breadth extreme, 63 feet; depth moulded, 42 feet; number of decks, 5; depth of water-bottom, 4 feet; number of principal water-tight compartments, 17; distance of collision bulkhead abaft of stem, 33 feet.

The hull is so divided by bulkheads that any two, or even three, compartments may be simultaneously filled with water without causing the ship to sink.

The anchors are of the Hall and the Trotman patterns. The ships will carry fourteen Chambers' collapsible lifeboats, fourteen ordinary lifeboats, one cutter, one gig, and four metal boats, all secured to and operated from the shade deck.

LUMBER HANDLING.

At an adjourned meeting of the Lumber Exchange, vessel owners and lumber stevedores, held in the committee rooms of the Merchants' Exchange at Buffalo, the following rates for unloading lumber were agreed upon for the season of 1895. The rates per M. for 1894 and 1893 are also shown.

WHITE PINE, 1893.—Log run, 25 cents; mill culls, 30 cents; shorts, 50 cents.

STRIPS IN LOTS, 1893.—4-inch, 40 cents; 5-inch, 30 cents; 4 and 5-inch mixed, 35 cents; 6-inch, 25 cents; 4, 5 and 6-inch mixed, 32 cents; lath, 7 cents; shingles, 18-inch, 4 cents; shingles, 16-inch, 3 cents; cedar posts, 1 cent per piece.

NORWAY, 1893.—1, 1¼ and 2 inch, 28 cents; 3, 4 and 5-inch bill stuff, 35 cents; 6-inch and thicker, and carsills at a price to be agreed on, or can be unloaded by consignee. Bass wood and elm, 30 cents; ash, 40 cents; maple, 45 cents; oak, 60 cents. The above to apply to barges up to 12 feet depth of hold. Two cents extra per 1,000 on barges of over 12 feet depth of hold, and on all steamboats, up to 600,000 capacity. Three cents extra on all steam boats of over 600,000 capacity.

WHITE PINE, 1894.—Log run, 22 cents; mill culls, 26 cents; shorts, 44 cents.

STRIPS IN LOTS, 1894.—4-inch, 35 cents; 5-inch, 26 cents; 4 and 5-inch, mixed, 31 cents; 6-inch, 22 cents; 4, 5 and 6-inch mixed, 28 cents; lath, 7 cents, less ⅛ per M.; shingles, 18-inch, 4 cents, less ⅛ per M.; shingles, 16-inch, 3 cents, less ⅛ per M; cedar posts, 1 cent per piece, less ⅛ per M.

NORWAY. 1894.—1, 1¼ and 2-inch, 25 cents; 3, 4 and 5-inch bill stuff, 31 cents; 6-inch and thicker, and car sills at a price to be agreed on, or can be unloaded by consignee. Bass wood and elm, 26 cents; ash, 35 cents; maple, 39 cents; oak, 53 cents. The above to apply to barges up to 12 feet depth of hold. Two cents extra per 1,000 on barges of over 12 feet depth of hold, and on all steam boats up to 600,000 capacity. Three cen s extra on all steam boats of over 600,000 capacity.

1895.—All pine lumber except shorts, 22 cents; shorts, 40 cents; 4-inch strips in lots, in hold, 10 cents per M. extra; Norway, to and including 2-inch, 18 feet and under long, 22 cents; 3, 4 and 5-inch bill stuff, 28 cents; bass wood and elm, 25 cents; ash, maple and oak, 35 cents; lath, 7 cents, less ⅛ per M.; shingles, 18-inch, 4 cents, less ⅛ per M.; shingles, 16 inch, 3 cents, less ⅛ per M.; cedar posts, 1 cent, less ⅛ per M. Barges and steamers over 12 feet hold, $5 extra for each 6 inches or fraction thereof. Boats with over one cross beam in hold or with overhead arches, 3 cents per M. extra on entire cargo. The above rates for the season of 1895.

A DIRECT COUPLED ELECTRIC GENERATOR.

(ILLUSTRATED)

The F. P. Little Electrical Construction & Supply Co., of Buffalo, N. Y., have added another specialty to their rapidly growing business, in the shape of direct coupled marine generating sets. These generators are manufactured by the well known Eddy Electric Manufacturing Co., of Windsor, Conn., and in view of the rapid introduction of electrical apparatus in all parts of this country, and the general recognition of the many advantages in point of convenience and economy, to be derived by its use, they do not consider it necessary to discuss the subject from this point of view. To the prospective purchaser or the consulting engineer, who, amid the multiplicity of styles and types of electrical machinery. bewildered by their conflicting claims to merit, hesitates in his selection, they endeavor to point out wherein their apparatus possesses remarkable features of superiority. For any system of electrical distribution, the choice of the generator should be made with the utmost care. Should some of the wiring, lamps or motors prove defective, but a small portion of the plant is affected, but on the other hand, should the generator, to whose regulation and reliability all the other features are subordinate, show evidence of weakness, the commercial success of the entire system is jeopardized.

This company has not gone hastily into this important branch of electrical manufacture. Its long and successful career under one management has given it not only a knowledge of the peculiar and exacting requirements of generating machinery, but also the skill, born of extensive experience to meet these many conditions.

The type "G" generator is the latest outgrowth of this experience. As yet but a short time on the market, its successful operation has already attracted widespread attention and comment. The remarbably small size and weight for output, the simplicity and mechanical excellence of design and the beauty of finish commands immediate attention from those familiar with modern dynamo machinery. In building the type "G" machine, it has not been the aim to introduce any startling novelties or devices of untried merit, but rather to combine the well recognized features of correct design with the best material and workmanship. This is necessarily an expensive method of manufacture, but by the use of steel of high magnetic permeability for parts previously made of cast iron, and by calculating the various proportions to a degree of refinement not hitherto attempted, the price of these machines has been kept within reasonable limits.

To the "man at the station," the dynamo tender, the type "G" machine appeals at once. He notes the large self-aligning and self-oiling bearings provided with sight gauges and cocks to withdraw the oil. He notes the brush holders, the readiness with which brushes can be removed or their tension on the commutator adjusted while the machine is in operation. Nor does he fail to observe the belt-tightening device, and the general accessibility of all the electrical connections, as well as the other little details by which his comfort and peace of mind has been promoted. All this is before the machine is started, but after the day's run is over, and he has seen the perfect regulation, the absence of sparking under widely varying loads, without any shifting of the brushes, and the complete indifference of the machine to any necessity for his attentions, his admiration may be tinged with mild regret for the "good old days" when machines were not quite so automatic, and frequently only his skill and presence of mind had saved the station from a disastrous shut-down.

The electrician of the station is no less interested in the machine, though for other reasons. While he too considers the convenience of operation he also keeps one eye on his coal pile and the other on his watt-meter readings. He is familiar with the fact that many of the so-called "efficient" machines cost more for repairs in two months than all the coal they could possibly save in two years, but at the same time he cannot afford to run any apparatus which is unduly inefficient. He will not be disappointed in the "G." The low temperature of the armature and other parts of the machine after protracted runs indicate unusual efficiency which more exact measurements will verify. Actually 95 per cent. of the power supplied at the pulley may be obtained in the form of electrical energy at the dynamo terminals on the 110 K. W. and larger sizes. It is difficult to see how this efficiency can be exceeded.

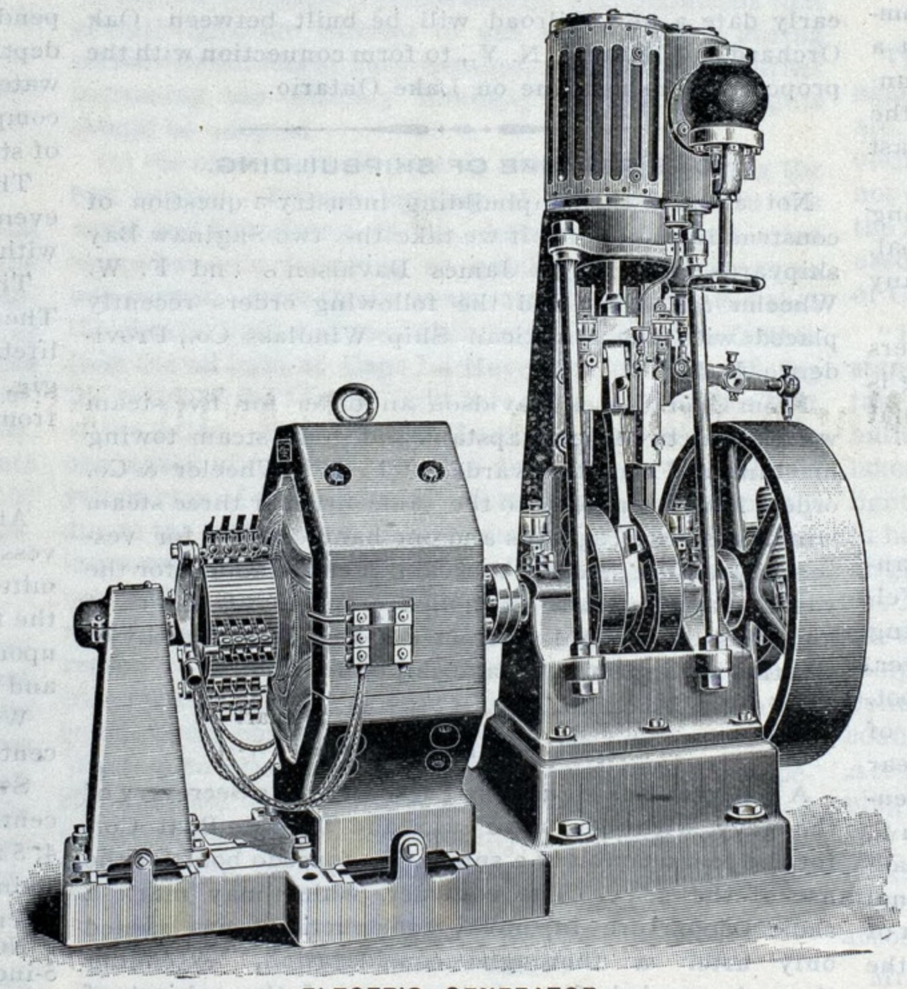
THE ARMATURE.

This is the modern "ironclad" type. The core is built up of washers of charcoal iron laminated with a high grade of paper and mounted on a ventilating cast iron barrel. These washers are separated at intervals by air-ducts leading from this barrel to the surface of the core, forming a system of channels through which the air is free to circulate. This produces a most thorough ventilation. The surface of the core is slotted and in the slots are laid the inductors, which consist of copper bars of rectangular section. Particular attention may be called to the shape of these slots with its attendant advantages. Being open on the top, the insulated bar can be placed directly in the slot. The connection between bars and with the commutator is accomplished by bent strips so arranged that there are no crossings of connectors at the armature heads, thus avoiding a most fruitful source of trouble. The inductors are insulated from the core by mica and paper, and the insulation is therefore as nearly as possible fire proof. With this form of construction the danger of a burn-out is almost entirely eliminated, but should an accident occur, one or two bars may be removed without disturbing the others, and repairs to the armature be readily made. On some of the smaller armatures, requiring a large number of conductors, a modification of the above structure becomes necessary. Instead of a single bar, a coil of two or more turns is placed in a slot. The construction is such, however, as to retain all the advantages of perfect insulation and reliability. The shaft, upon which the armature is mounted, is of hammered steel, accurately ground and fitted.

The commutator is of peculiar design. It is perfectly ventilated and allows the air to pass freely to the armature cores. The segments are of the purest copper, insulated by mica and held in place by collars. These collars are tightened by bolts extending through the commutator under the strips, and these bolts are secured by an efficient and simple nut lock. Thus it is easy to tighten the commutator without other tool than a wrench.

THE FIELD.

The field poles, which are of cast steel of fine magnetic quality, are bolted to a frame of cast iron. Owing to the peculiar shape, there is but little loss from leakage in the system, and no external magnetism is evident. The coils are wound upon substantial galvanized iron spools with brass heads. We do not use fibre or any similar material which is liable to warp or become



ELECTRIC GENERATOR.

injured in handling. These spools are supported away from the pole pieces in such a manner as to permit free circulation of air to their inner as well as their outer surfaces. Those familiar with the trouble and annoyance that hot spools produce in the regulation of a machine, will greatly appreciate the low temperature of the type "G" coils. To secure the insulation of the windings, a liberal supply of mica is used, and to still further insure safety the series coil is not wound over the shunt, but placed in a separate compartment.

THE BEARINGS.

The base and pillow-block boxes are cast with the lower half of the magnet to secure great rigidity. The bearings are self-aligning, the babbit bushings being mounted in a gun-metal shell which rests by means of a spherical joint on the cast-iron pillow block box. The lubrication, which is automatic, is accomplished by a loose ring revolving with the shaft, the oil being retained in a reservoir in the bottom of the box.

THE BRUSH HOLDERS.

These machines are ordinarily equipped with brush holders of special design. The brushes are firmly pressed against the commutator in the direction of its radius, the pressure being regulated at will by a change of tension of the springs. If desired, however, the tangential style of brush-holder, shown in the electrotype of the machine, may be substituted. These are preferred by some on account of their more noisless running, but require rather more attention than the radial type. Both patterns will carry the full rated current in a cool and sparkless manner. The machines are wound as power generators for 500 or 250 volts, and for isolated lighting for 110 volts. They will be compounded for the loss in line wiring as may be desired.

MARITIME LAW.

DRUM v. STEAM TUG ELMIRA AND LIGHTER E. STEARNS.

U. S. District Court, Southern District of New York.

COLLISION—STEAM AND SAIL—FAILURE OF SAILING VESSEL TO BEAT OUT TACK—FAILURE OF STEAMER TO REVERSE.—A lighter, beating up the North River, crossed the bows of a tug and tow, which were going up near mid-stream. After passing the line of the tow but a short distance, the lighter came about again, and collided with the tow. Held, that the lighter was in fault for not beating out her tack, if her course was clear of vessels; and if the story was true that her course was obstructed by a steamship, she was equally at fault for crossing the bow of the tug at all, as the obstruction must have been visible before she reached the line of the tug and tow. The master of the tug stopped when he saw the lighter begin to come about, but he did not reverse. The court found that if the tug had so reversed the lighter would have gone clear, and hence, held that the tug was also in fault for the collision. Brown, J.

UNITED STATES v. THE HAYTIAN REPUBLIC.

District Court, D. Oregon. December 17, 1894.

MARITIME LIENS—MONEY LOANED TO OWNERS—ADVERTISEMENTS FOR BUSINESS.—Money loaned to the owners to be used in running the vessel, and in fact applied to that purpose, is a credit to the owners, and not a lien on the ship; and the same is true of bills for the ship's advertisements for business.

SAME—FORFEITURE OF VESSEL FOR SMUGGLING—KNOWLEDGE OF SUPPLY MEN.—The fact that a ship has been arrested for smuggling, and released on bond, held sufficient to put persons subsequently furnishing her with supplies upon inquiry as to her character, and to defeat their claims, as against the government's right to a forfeiture.

WILLIAMS v. THE SIRUS.

District Court, N. D. California. January 2, 1895.

ADMIRALTY—MARITIME SERVICE—WATCHMAN.—The service rendered by a watchman employed to care for and clean the machinery and maintain a general care and supervision of a vessel lying at her home port, out of commission, and with no voyage in contemplation, is not maritime. Libel in rem for balance of wages as ship keeper of a vessel in her home port, and not engaged in navigation, present or prospective. Libel dismissed, the service rendered not being maritime.

LONDON ASSUR. CO. v. PROCEEDS OF THE ALLIANCA.

District Court, S. D. New York. January 10, 1895.

SURPLUS MONEYS—MORTGAGEE—NON-LIEN CLAIMS DISALLOWED.—Claims for insurance premiums and for moneys advanced to disburse ships in a foreign port, and to keep the vessels of the line running, in so far as they are not maritime liens, cannot be paid out of surplus moneys in the registry arising from a sale of the vessels, in priority to the claims of a mortgage of the vessels (1) because such claims are neither legal nor equitable liens upon the vessels or their proceeds; (2) the allowance of certain unsecured labor and supply claims in priority to the mortgagee's claims, in cases of railway receiverships, are not analagous or applicable; petitions for the payment of such claims were accordingly dismissed.

NOTES.

MR. EDWARD C. O'BRIEN is now one of the dock commissioners of New York having entered upon his duties on Friday last. The ex-commissioner of navigation is well liked in all maritime circles and his appointment meets with general commendation. Any of our readers who have formerly met with injustice or discrimination at the hands of former dock commissioners in New York will find an able man to assist in rectifying wrongs in the person of E. C. O'Brien.

AT last the inevitable has come about and the yards of a square rigged vessel can now be trimmed with a hand or two. There are no ship-rigged craft on the lakes therefore this appliance will not be brought into use on those waters but the fact remains that Bullivant & Co., 72 Mark Lane, London are making a multiple drum winch to handle flexible steel wire rope braces with which even one man may swing yards and it is partially automatic in trimming same through crude affairs for the latter feature were in use some time ago.

THE submarine vessel Gustave Zede is reported to have made successful trials since her alteration. She is now, it appears, able to sink to a depth of over sixty feet and remain nearly three-quarters of an hour under water, and has been engaged in testing her speed, her gyratory powers and her plunging down or diving capabilities. So long as the periscope she is furnished with, which is supported upon a platform, can keep its upper extremity just above water level, she can steer her course, but when that becomes submerged she, like all other crafts of the same character, finds the value of her services seriously diminished.

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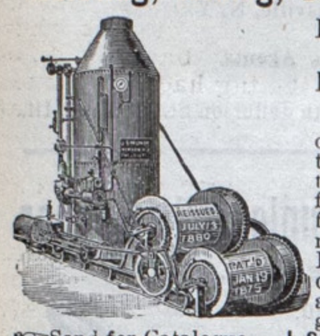

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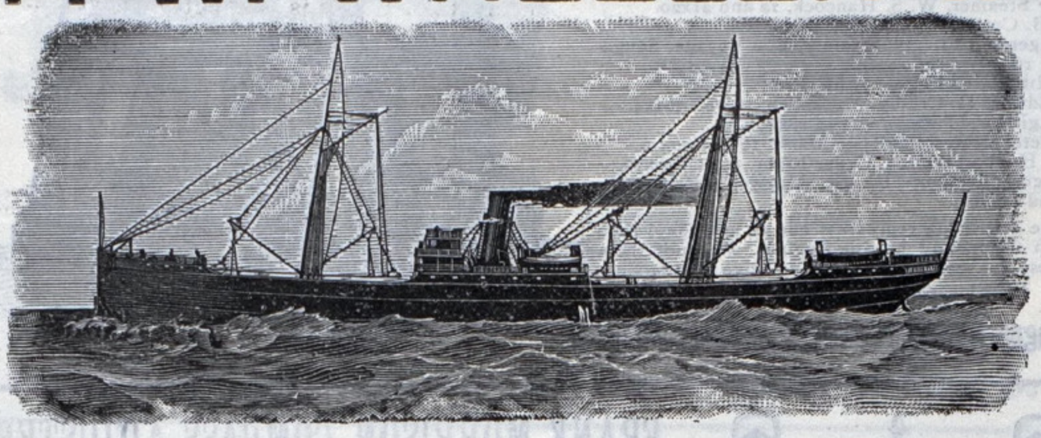

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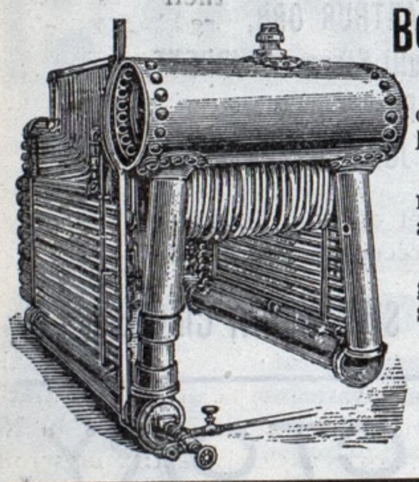

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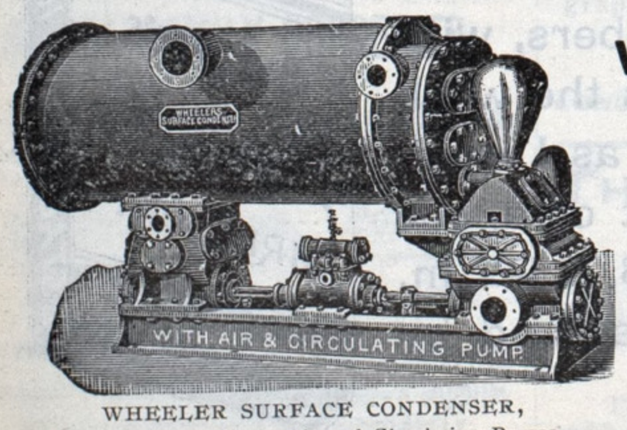

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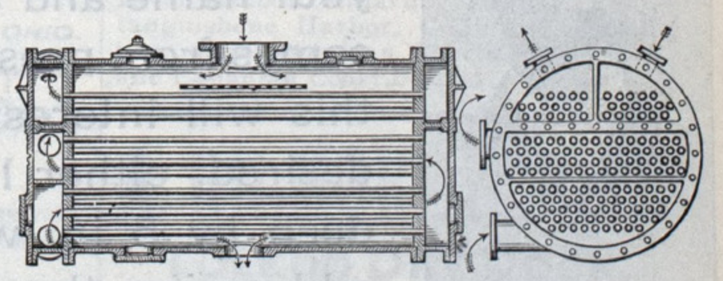

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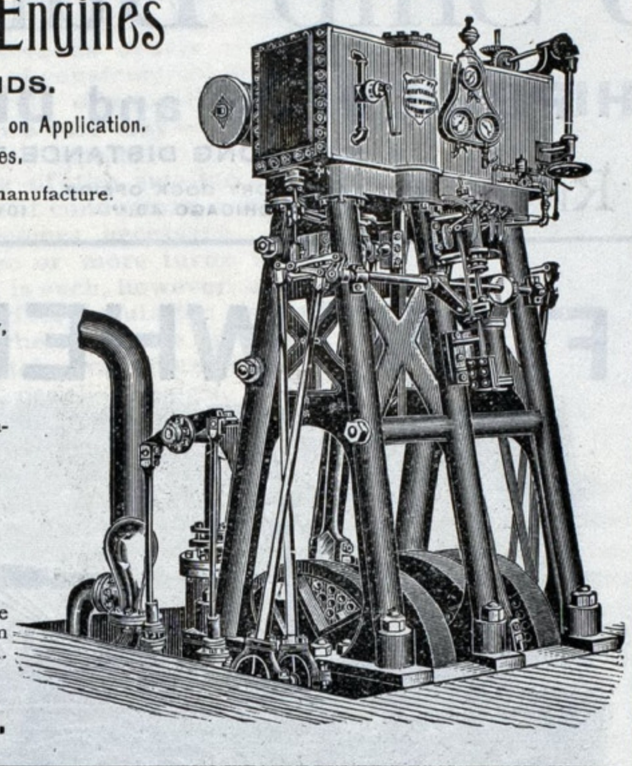

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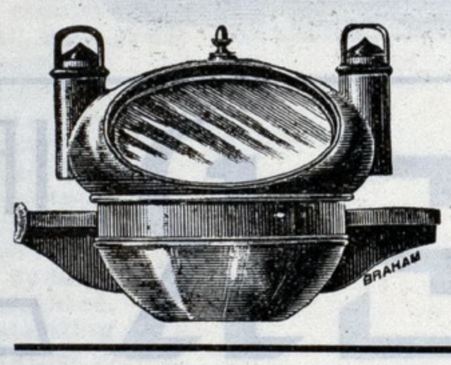

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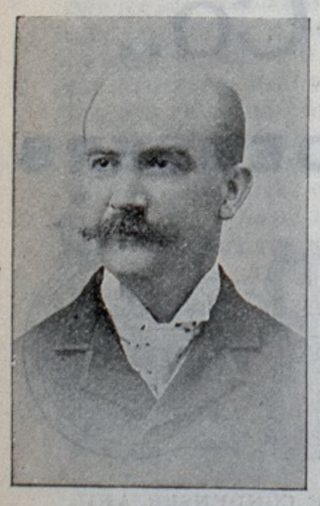

NOW IS THE TIME TO WRITE and obtain rates for advertising space in this, the only Marine Directory published, where your business should be represented, if only as subscribers, with your name and address under appropriate headings. As the work comes from press April 15th, there is no time to be lost if, as I trust, this will interest you. Please specify probable amount of space desired, either 1-4, 1-2 or whole page. Size of page is 8 & 1-2 in. deep by 5 in. wide. Personal and prompt attention assured by addressing the Publisher,

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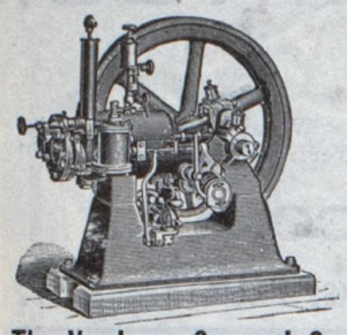

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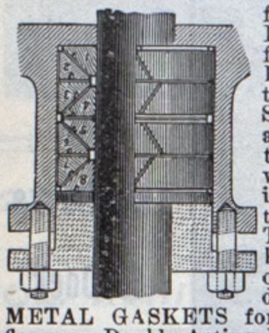

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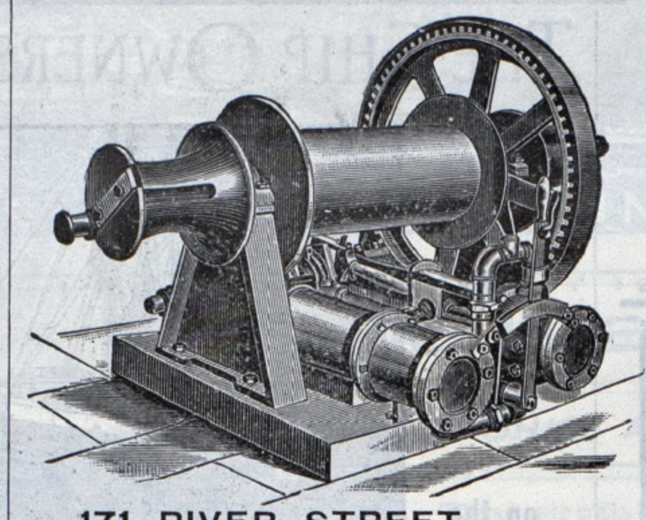

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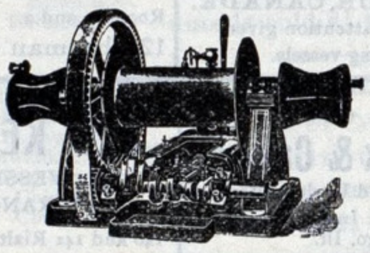

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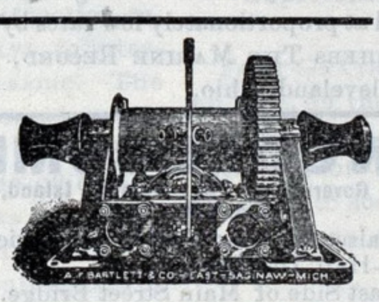

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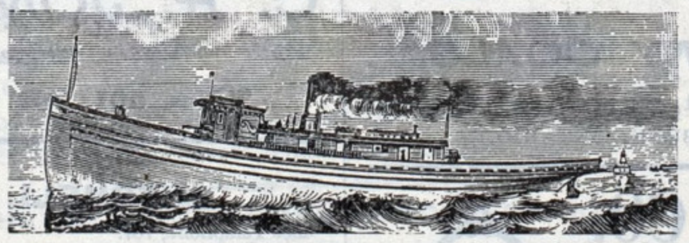

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U. S. ENGINEER OFFICE, 157 Ottawa St., Grand Rapids, Mich., March 5, 1895. Sealed proposals will be received here until 12 o'clock noon, April 4, 1895, and then publicly opened, for Breakwater construction at Petoskey, Mich., and for Pier extensions at Frankfort Harbor, Mich. Specifications furnished on application to G. J. LYDECKER, Lt. Col. Engrs. 10–13

U. S. ENGINEER'S OFFICE, Duluth, Minn., March 1, 1895. Sealed proposals for repair work to revetment at upper entrance, Portage Lake Ship Canals, Mich., will be received here until 12 m., April 1, 1895, and then publicly opened. Further information furnished here or at branch office, Houghton, Michigan. CLINTON B. SEARS, Major, Engineers. 13

OFFICE OF ENGINEER 9TH AND 11TH LIGHT-HOUSE DISTRICTS, Detroit, Mich., March 25, 1895. Sealed proposals will be received at this office until 3 o'clock p. m. of Monday, the 15th day of April, 1895, for furnishing seven skeleton iron towers for Hay Lake Channel, St. Mary's River, Michigan. Plans, specifications, forms of proposal, and other information may be obtained on application to the undersigned. The right is reserved to reject any or all bids, and to waive any defects. M. B. ADAMS, Major, Corps of Engineers, U. S. A., Light-House Engineer. 13–14

OFFICE OF LIGHT-HOUSE BOARD, Washington, D. C., March 11, 1895. Sealed proposals will be received at this office until 2 o'clock p. m., on Thursday, the 11th day of April, 1895, for furnishing the materials and labor of all kinds necessary for the construction and delivery of one first-class composite Light-Vessel No. 66 for a fixed sum for said vessel delivered. Forms of proposal, plans and specifications, showing what is required, can be had or seen by applying to this office. The right is reserved to reject any or all bids and to waive any defects. JOHN G. WALKER, Rear-Admiral, U.S.N., Chairman. 11–12

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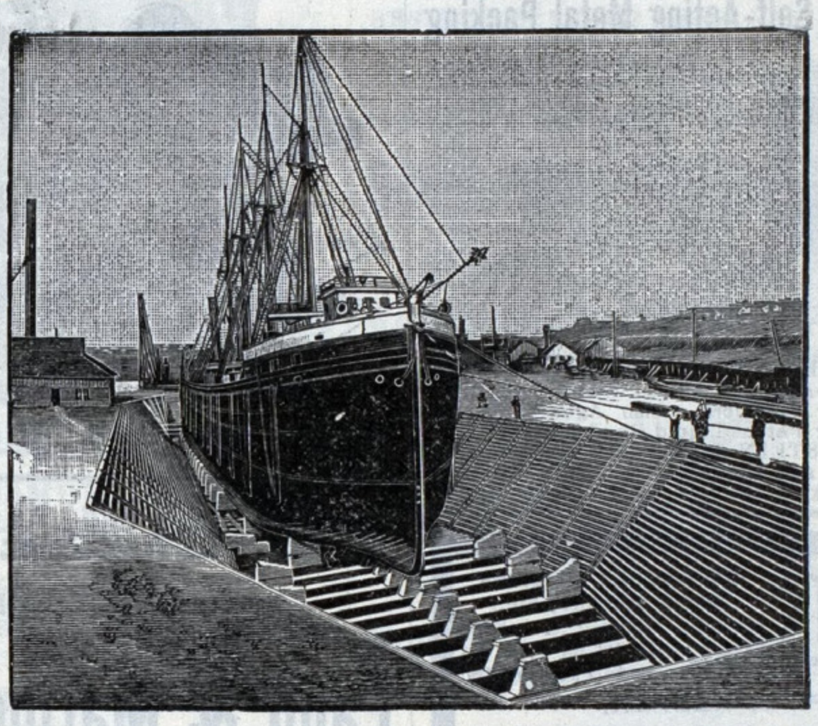

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